

**Tacubaya. Observatorio astronómico nacional.**

El Observatorio astronómico nacional en su quincuagésimo aniversario. Tacubaya. 1928. 28 p. plates. 19 $\frac{1}{2}$  cm.

**Tanaka, Kwan-ichi.**

Experimental study on the effects of low barometric pressures and oxygen deprivation upon the efficiency of mental and physical work. p. 127-230. figs. plates (fold.) 26 cm. (Report Aeron. res. inst., Tôkyô imp. univ. v. 3, no. 7. March, 1928.)

**Theaman, John R.**

Rainfall tables for the island of New Guinea ... Indianapolis. 1928. 1 map. 28 $\frac{1}{2}$  cm. [Typewritten.]

**SOLAR OBSERVATIONS****SOLAR AND SKY RADIATION MEASUREMENTS DURING MAY, 1928**

By HERBERT H. KIMBALL, Solar Radiation Investigations

For a description of instruments and exposures and an account of the method of obtaining and reducing the measurements, the reader is referred to the REVIEW for January, 1924, 52: 42, January, 1925, 53: 29, and July, 1925, 53: 318.

Table 1 shows that solar radiation intensities were slightly below the normal values for May at Lincoln, Nebr., and close to normal at Washington, D. C., and Madison, Wis. At Washington an intensity of 1.46 gr. cal. per minute per cm.<sup>2</sup> measured at 10 a. m. of the 24th exceeds slightly the previous maximum for May at that station.

Table 2 shows that the total solar radiation received on a horizontal surface directly from the sun and diffusely from the sky was close to the May normal at Washington and decidedly above at Madison and Lincoln.

Skylight polarization measurements at Washington made on seven days give a mean of 54 per cent, with a maximum of 63 per cent on the 2d. At Madison measurements made on seven days give a mean of 58 per cent with a maximum of 68 per cent on the 12th. These are close to the corresponding average values for May for both stations.

TABLE 1.—Solar radiation intensities during May, 1928

[Gram-calories per minute per square centimeter of normal surface]

**WASHINGTON, D. C.**

Date	Sun's zenith distance									
	8a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°
	75th mer. time	Air mass					Local mean solar time			
e.	5.0	4.0	3.0	2.0	1.0	2.0	3.0	4.0	5.0	e.
mm.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm.
May 1	6.02						1.17	1.42		6.50
May 5	6.27						1.21	1.41		4.37
May 7	4.37						1.24			3.81
May 9	6.50						0.85	1.25		7.04
May 11	4.57						1.06	1.50		3.30
May 12	3.99						1.27	1.43		3.45
May 23	6.50						0.76	1.20		7.04
May 28	5.79						1.39			6.02
May 29	6.76						1.18	1.40		6.50
Means							1.09	1.38		
Departures							-0.02	+0.02		

**Ukraine. Meteorologischer Dienst.**

Geophysikalische Charakteristik der Ukraine unter allgemeiner Leitung des Director des Ukrmet's M. Danilevsky. Teil 3. Materiale des hydrologischen Dienstes Jahr 1924-1925 hidrol. Hydrometeorologie. Redactiert vom Vorstand des hydrologischen Dienstes Ing. S. Komarnitzky. Kyjiv. 1928. 58 p. plates. 31 cm.

**U. S. Public health service.**

Comparative tests of instruments for determining atmospheric dusts. Washington. 1925. iv, 69 p. figs. plates (part fold.) 23 $\frac{1}{2}$  cm. (Pub. health bull. no. 144.)

TABLE 1.—Solar radiation intensities during May, 1928—Contd.

**MADISON, WIS.**

Date	Sun's zenith distance										Local mean solar time
	8a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	
	75th mer. time	Air mass					Local mean solar time				
e.	5.0	4.0	3.0	2.0	1.0	2.0	3.0	4.0	5.0	e.	
mm.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm.	
May 1	6.02						1.17	1.42		6.50	
May 5	6.27						1.21	1.41		4.37	
May 7	4.37						1.24			3.81	
May 9	6.50						0.85	1.25		7.04	
May 11	4.57						1.06	1.50		3.30	
May 12	3.99						1.27	1.43		3.45	
May 23	6.50						0.76	1.20		7.04	
May 28	5.79						1.39			6.02	
May 29	6.76						1.18	1.40		6.50	
Means							1.09	1.38			
Departures							-0.02	+0.02			

**LINCOLN, NEBR.**

May 1	3.45			0.84	1.10	1.32				4.75
May 4	6.50						1.17			6.50
May 5	5.36			0.83	0.97	1.16				3.81
May 9	9.14	-0.61	0.72	0.87	1.06	1.32				9.14
May 19	8.81		0.81	0.97	1.17	1.42	1.09	0.86	0.74	6.27
May 21	5.41		0.93	1.10	1.25	1.43	1.20	0.97	0.82	5.16
May 22	6.76			0.73	1.00					6.02
May 23	8.81			0.44	0.64					6.48
May 25	7.87		0.72	0.81						6.27
May 29	8.81		0.75	0.90	1.15					6.76
May 30	10.21			0.92	1.10	1.30				9.14
Means	(0.61)	0.79	0.86	1.07	1.36	1.15	(0.92)	(0.78)		
Departures	-0.09	-0.02	-0.08	-0.06	-0.02	+0.04	+0.01	-0.01		

<sup>1</sup> Extrapolated.

TABLE 2.—Solar and sky radiation received on a horizontal surface

[Gram-calories per square centimeter of horizontal surface]

Week beginning	Average daily radiation					Average daily departure from normal		
	Wash- ington	Mad- ison	Lin- coln	Chi- cago	New York			
	1928	cal.	cal.	cal.	cal.	cal.	cal.	cal.
Apr. 29	563	462	514	409	385	+105	+11	+21
May 6	418	606	567	498	426	-31	+138	+92
May 13	459	414	433	319	356	-7	-60	-83
May 20	361	581	638	463	304	-116	+97	+89
May 27	563	531	528	447	411	+57	+49	+13
Excess or deficiency since first of year on June 2						-560	+2,737	+1,183